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A DECADE OF ECONOMIC THEORY.¹

The brevity of the time allotted to me for this retrospect compels me to content myself with a sketch in rough outlines, for to follow the temptation to go at all into details would necessitate a far longer paper than could be read in twenty-five minutes. After all, it may be questioned whether a longer review is desirable in a paper to be presented on an occasion like this. It is extremely helpful at times to take a general survey of ground traversed, so that we may know whence we have come, how far we have traveled, and whither we are marching. When we study this small detail and that little incident of the decade we do not so clearly perceive the broad lines of progress.

Whence have we come? Where did we stand in economic theory ten years ago?

But perhaps first of all we should have some definite ideas in regard to what we understand by economic theory. The term is frequently employed as equivalent to deductive investigation in economics, and sometimes science is used in this restricted sense. The term economic science, for example, was thus used by John Stuart Mill, and in his discussion of competition he placed beyond the range of economic science all those economic inquiries which could not be conducted by deductive processes. Is this restricted use of the terms theory and science justifiable? It scarcely seems to me that we can find warrant for this limitation either of theory or of science.

It is surprising how little attention has been given to the term theory when we reflect on the frequency with which it is used. If we recall the use of the term in certain well-known cases, we may receive help. We have various theories of language,—for example, the bow-wow theory. We

¹ An address delivered at the meeting of the Academy, December 14, 1899.

have the undulatory theory of light, the theory of special creation, the theory of evolution, the atomic theory, the Young-Helmholtz theory of color. In each one of these cases we use the word theory to indicate a special or particular mode of explanation of groups of concrete phenomena. The theory is supposed to show how definite orders of things have happened, and from these theories we reason deductively. The theory is a generalization. Then we have such expressions as the Austrian theory of value, which is a definite mode of explanation of value. So we might continue our illustrations indefinitely. Theories deal with explanations of things, and in theories we ascertain a clearly marked endeavor to give as large and sweeping generalizations as possible. A great theory is one which explains such large classes of phenomena in their most fundamental aspects that it illuminates them in an unusual degree and furnishes a point of departure for new researches of any kind. A theory of less import is that which explains smaller groups of phenomena and reaches down less deeply into them. Theories are conclusions of a general nature concerning phenomena; some of the theories being of more, and others of less, significance. All workers in a science are concerned with theory, and it is deplorable that any one should regard himself as concerned with anything else but theory. Any one not engaged in theory would be busied simply in a haphazard collection of facts.

Similarly, the word science means an organized body of knowledge, however gathered together, whether deductively, inductively, or statistically.¹

However, those called the theorists are those who pre-eminently seek the most general and fundamental causes of phenomena, and they employ largely deductive methods of reasoning, as deduction is essential for the widest generali-

¹I do not think that causal relations and prediction are the boundaries of science, although it is doubtless true that as any science progresses it reveals increasingly causal relations and its power of prediction grows.

zation, although in every case concrete study must precede or accompany deduction.

It is thus seen how from our point of view it is simply folly to disparage economic theory, which aims to bring into their proper relations the orders of phenomena with which economics is concerned, and to show their causal relations. Complete theory would be complete knowledge, and it is for that that we are striving. When theory is decried, what is really meant is imperfect theory or wrong theory, or wrong methods of reaching theory.

When we survey the past decade in economic theory and then look back from that over the preceding decade, it becomes quite clear that the important theoretical developments of this decade may be traced back to germs in the previous one. I think that this is a general truth which lacks even the proverbial exception. Again, when we look at the present condition of economic theory, we must confess that we have every reason to think that the completion of theories which are in the process of growth will take us well on toward 1909. On the other hand we do not need to go back of 1879 to find marked beginnings of the present developments of economic theory in the United States, and in my own opinion by 1909 new growths may be expected to dominate the field of economics. If this prognostication is correct, the past decade is a middle period in a scientific cycle.

Continuing our broad survey from another point of view, we take up one by one the old traditional divisions of our subject-matter into production, exchange, distribution and consumption, and inquire in what fields pre-eminently has theoretical work been done during the past decade? There can be no doubt about the answer. Production has been so sadly neglected that it is difficult, if not indeed impossible, to recall any important piece of original work which belongs to this field, although here and there some one is, I think, beginning to say that this portion of our

territory has been too long neglected and that in it are grand opportunities. Something has been done with that portion of exchange or transfers of goods which is concerned with the media of exchange, or to speak more definitely, money and its substitutes. The controversy concerning bimetallism and monometallism has continued with first rising and then declining interest, and with a strengthening of those theories which the term monometallism covers at the expense of those which fall under the term bimetallism. I think we cannot deny this whether we like it or not. But while there has been a certain shifting of theories with respect to strength, there has been comparatively little that is positively new. It may be mentioned particularly that the quantity theory of money has been vigorously combated, and I think we may claim fairly that along this line there has been a development of theory. It is not easy to single out names, for the past decade has witnessed a considerable amount of good theoretical work in the field of money, but in the present connection the work of Professor J. Laurence Laughlin and the noteworthy article contributed to the ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE by my colleague, Professor William A. Scott, occur to me. I think also that there has been a minor development of theory which has attempted to throw light on the relation between an increasing value of money and a declining rate of interest, justifying the former by the latter, and again two names occur to me, —namely, those of Professors Irving Fisher and J. B. Clark.

It is when we come to distribution and consumption that we find the departments of economics which have been the centres of interest, so far as economic theory is concerned, and these two departments of inquiry which occur to any one in connection with economic theory in the United States during the past decade, may almost be reduced to one, inasmuch as consumption has been pursued chiefly with reference to a theory of distribution. If that statement puts the

case too strongly and fails to do justice to the theory of consumption, we can at least say that distribution in its various aspects has been the main centre of interest with respect to economic theory. In this connection, two names suggest themselves to any one who listens to me. They are the names of Professors J. B. Clark and Simon N. Patten. I must on this occasion give a few moments to the theories of each, reserving to other times and places an exhaustive discussion of their theories.

It is simply impossible to separate the work Professor Clark has done during the past ten years from his earlier work. To understand his theories and the direction in which he is moving, as well as the ground already traversed, we must go back to his earlier writings, which belong to the first half of the decade 1880-90. I find it convenient to take as a starting point Professor Clark's article, "Non-Competitive Economics," which appeared in *The New Englander* in November, 1882, and was reprinted in 1885 in his "Philosophy of Wealth." When we compare this article with recent utterances, we must say that it is a long road which Professor Clark has traveled during the past twenty years, and if we follow his evolution step by step, we shall say that a large proportion of the distance has been traveled during the past ten years.

The article "Non-Competitive Economics" is thoroughly saturated with ethical feeling. Emphasis is laid on the economic end of society, which is defined in these words: "The attainment of the greatest quantity, the highest quality and the most just distribution of wealth." It is there boldly stated that "the actual wealth of society varies more or less from the ideal standard and is but partly rational. Much of it," Professor Clark continues, "is not of high quality, and much that is so, is not well distributed." The imperfect workings of competition in various quarters of the industrial field are enforced, and co-operation, both public and private, is exalted. Government ownership of railways

is held to be both probable and desirable in the United States as well as elsewhere. It is argued that railways will promote the general welfare only so long as it is in their interest to do so. It is stated that recently the railway companies in our country or their managers "have often had much to gain by thus sacrificing the welfare of the inhabitants of the districts through which they pass. Discriminating rates for transportation, as well as other abuses, have recklessly made or marred the welfare of sections of the country, and are tending to hasten the time when only the assumption of railroads by the state can prevent evils too serious to be tolerated. The state only can secure for itself all the utilities which these agencies create, and ensure their impartial distribution among those who are dependent on them."

Arbitration is emphasized as "in its nature a very direct though as yet incomplete assertion of the moral law," and advocated as an agency belonging to "the forms of non-competitive economics" for the adjustment of wages.

The highest ethical forms of wealth, which, it is asserted, have been neglected as a result of illogical conceptions of wealth, are described and their place in economics indicated. Church and school are especially mentioned in this connection.

Competition, if supreme, Professor Clark claims, would be supremely immoral. It exists, we are told, simply "by sufferance," and "a superior power stands ready to abolish it whenever it fails to fulfill its end. It is an imperfect agent of moral law, and a man who thus recognizes it may participate in it without taint." Professor Clark concludes his article in these words: "The bad effects of the contest he (*i. e.*, the man thus recognizing competition) does not need to suffer; and to the lower levels where the golden calf worship is unhindered and blighting he does not need to descend. It is his privilege to live on the mountainous slope at the summit of which moral law reigns. He may

buy, sell and get gain, as well as give thanks and worship, with his eyes uplifted to the hills whence cometh his help."

In the preface to his "Philosophy of Wealth," written in 1885, we find it stated that a degraded conception of human nature (has) vitiated the distribution of wealth, and the closing words, which describe the purpose of his book, are as follows: "The place which it primarily seeks is in the hands of readers and thinkers who have long been in revolt against the general spirit of the old political economy."

I lay emphasis upon ethical purpose in this earlier work because it gave shape and direction to the theoretical developments, some of which I have pointed out. The development of wealth so as to include higher forms theretofore neglected, and the wide field of non-competitive economics may be instanced. In fact the entire discussion of competition may be cited. The critical student will notice, however, that even in 1882 moral beauty was discerned in an ideal sort of competition, a competition hedged about with moral limitations and presided over by "the spirit of justice." Of competition thus understood, Professor Clark said: "The principle whereby the struggle of many men, each for himself, to secure wealth, is made to work out the general good of all, has all the beauty claimed for it." Note this carefully, for this is a germ of later development of theory. Presently that which was apparently last shall become manifestly first.

Purpose, then, clearly dominates the earlier as well as the later theoretical developments of Professor Clark; but in the earlier writings, serious, grave imperfections were found in our existing order, and the purpose of our theorist was to work for a coming kingdom of righteousness, shrinking from no overturnings necessary to accomplish this end. That was the time, as those with good memories still recollect, when Professor Clark was numbered among the "dangerous men" marked out for slaughter by the Scribes and Pharisees, and when his friends still felt called upon to

show that those who regarded him as dangerous misapprehended the true nature of his teachings.

In the year 1887 a sharp turn in the direction of Professor Clark's evolution is clearly discernible. I have in mind particularly his article on "The Limits of Competition," which appeared in the *Political Science Quarterly* in that year, and which was reprinted in 1888 in the "Modern Distributive Process," together with another article by himself and two by his present colleague, Professor Giddings. We now begin to detect the development of the theory of latent, potential, and residual competition—we have here in reality one conception—and this competition is looked upon as one chief reliance to secure justice, even when combination is apparently swallowing up competition. There has been in Professor Clark a marked development of theory along that line from that time up to the present.

Another noteworthy germ of subsequent theoretical development is found in these words in Chapter III¹ of "The Modern Distributive Process:" "Pure mercantile profit is the only conceivable sum from which great additions to general wages can come. This profit is in reality a vanishing sum, having in a competitive system only a temporary existence."

The monograph "Capital and Its Earnings," published in 1888 by the American Economic Association, shows the reaction in theory well under way. It contains a passionate defence of landed property, particularly directed against the schemes of the late Henry George, which are termed more than robbery, being indeed, to quote Professor Clark's own words, "the quintessence of robbery." The theoretical development which leads to this conclusion consists in reducing to very low, if not vanishing terms, the Ricardian conception of rent of land as unearned income and in developing the theory that landed rent consists of little else than an honest, because earned, return for capital-investments.

¹ These words are quoted from the "Table of Contents."

Subsequent developments of theory along this line endeavor to show that capital earns its hire.

The theory of wages, developed elsewhere by Professor Clark, finds that the wage-earner has what he produces. All the value which he adds by his exertion to the materials upon which he works, as well as all the value of his services, comes to him by the workings of competition. Unhappily the limitations of time are such that I cannot now elaborate this thought.

The concepts monopoly and rent play a subordinate rôle in Professor Clark's theory.¹ We have already found that what goes by the name rent of land is usually profits on capital, and earned profits at that. Naturally it is to agricultural rents, rather than urban rents, that attention is chiefly directed in the monograph which has received mention. Similarly, in what has been published thus far small room is made for gains of monopoly as a separate sort of revenue. It would seem as if place were not found in Professor Clark's theories for monopoly gains, so absolutely and relatively large as to be of *vital* significance.

Another feature clearly marked in the development of Professor Clark's theories is the search for natural and universal law, giving us what appears very like a return to the nature-philosophy of the eighteenth century on the one hand, and to absolutism of theory on the other. Similarly the optimistic trend of his theories is so marked as to suggest the optimism of Frédéric Bastiat and his economic harmonies.² Did time permit, abundant illustrations could be furnished.

¹ It should be noticed that I admit the existence of these concepts in Professor Clark's theory.

² It is not asserted that everything according to Professor Clark is now exactly as it should be, although a bright side and a very bright side to nearly all existing economic conditions is found clearly implied in his writings. It is doubtless true that Professor Clark advocates a larger amount of governmental activity to maintain the natural competitive order than did Bastiat. This is brought out in Professor Clark's recent discussions of combinations (trusts). Very sensibly, in my opinion, he rejects the notion of interference with the growth of combination

In 1899, as in 1885, the ethical note is heard, although it is somewhat subdued; but its import is quite different. The purpose which dominates the development of Professor Clark's theory now is a justification of the competitive order of industrial society, and the dawning beauty of the rising sun seen in 1882 has now become the bright effulgent glory of the noontide. The ethical purpose is seen, for example, in the discussion of interest, in the "Genesis of Capital," which appeared in November, 1893. Capital is traced to abstinence, and this abstinence is regarded as a manifestation of altruism as well as a triumph of reason. The gains of accumulation accrue "through an endless period to an unknown series of persons, and in amounts that cannot be determined;" consequently, "the things that are eternal are literally unseen," and again the growing accumulations of capital are already interpreted to mean "the increasing power of the things unseen," and "the growing power of reason and altruism."

Other points to which attention must be called, although no more than mention is now possible, is the distinction between capital and capital-goods, in which there is a differentiation from Dr. von Böhm-Bawerk, and the distinction between static and dynamic forces in economics—a distinction of which Professor Clark promises in the future a much fuller development than we have thus far had.

I regret that I cannot give more time to these two interesting points. The distinction between capital and capital-goods as found in Professor Clark's writings is one which must in the future receive more careful critical attention than it has as yet, so far as I know, received. Upon it rests the distinction which he makes between interest and profits, and it plays a large rôle in the rent discussion, found in his monograph—already referred to—bearing

except in so far as monopoly in the true meaning of the term makes its appearance; but to prevent monopoly and maintain competition he is prepared to go very far, extending interference even to a very widespread price-regulation.

the significant title, "Capital and Its Earnings." Land-rent is to him essentially earnings of capital, and here we come back to economic optimism.

The distinction between static and dynamic conditions and influences introduces a change in the conception of natural law. For natural law changes with growth. Static conditions give us market price equal to minimum cost with an absence of pure profit. Dynamic influences restore net profits for employers, but the forces of competition quickly lay hold of these net profits and distribute them among laborers and capitalists. It is only a further step in progress that enables employers to secure once more net profits, again to be turned over to others by the forces of competition.

Finally, I wish two things borne in mind. I am not now and here expressing my own views concerning these theories, and it is not safe to infer them from what I have said. I am trying to present objectively an interesting development of theory, a development, let me say—for so far I will express my opinion—with which I am not altogether out of sympathy. In the second place, I am speaking about the developments of theory during the past decade, and I have no desire to assume the rôle of a prophet. We are even now awaiting with keen interest the advent of a long-promised work by Professor Clark, and when that appears it will be in order to review once more his theories, which when more fully and more adequately presented than they have been thus far, may as a whole take a somewhat different shape. We shall see. I cannot close without giving expression to my appreciation of the debt which American economics owes to Professor Clark for his careful, painstaking analysis, and for luminous expression of doctrine, as well as for his earnestness and elevation of spirit.

Professor Patten has approached the entire problem of economics from the standpoint of consumption, and I can at the outset of my characterization of his theories do no better than quote words which I wrote some years since:

“The theory of consumption is with him the root doctrine out of which his entire economic system naturally grows. The two works of his to be specially mentioned in this connection are his ‘Consumption of Wealth’ and his ‘Theory of Dynamic Economics.’ Another truth emphasized by this writer is the importance of studying the laws of change in human society rather than simply the laws which govern it in equilibrium.

“In this place especial attention is called to Professor Patten’s theory of prosperity. It is, in brief, as follows: ‘The prosperity of society is measured by surplus utility, which is the difference between the costs and the utilities of goods. Cost means sacrifice from the social standpoint, the pain, the economic energy expended. . . . Whatever increases utilities, other things being equal, increases social surplus; similarly, whatever lowers costs, other things being equal, increases social surplus. What then are the causes increasing utilities? Variety of consumption, as seen in increasingly harmonious consumption, is one. A large number of commodities suitably related in consumption increases pleasure derived from consumption, and therefore utilities. The consumption of commodities which give pleasure and sustain life at the same time increases pleasure over the consumption of articles which merely sustain life. Well-prepared food may thus be contrasted with poorly cooked food, beautiful garments with ill-fitting clothing. The socialization of consumption is one of the most important means of increasing utilities. By this we understand the common use of goods and services. Paintings in public galleries afford indefinitely greater pleasure than the same pictures in a private house. Beautiful objects of nature have their utility increased by socialization. . . . Inclusive rather than exclusive pleasures must be our aim. Fuller utilization of existing resources by economies increases the social surplus, as well as the utilization of new resources. A larger command of nat-

ural forces increases the supply of utilities, and thus the surplus.

“On the other hand, a decrease of costs may be brought about in many ways, which may be summed up under the general head ‘Better Industrial Organization.’ The division of labor, so well described by Adam Smith, is one form which this improvement takes. The territorial division of labor is another. Improved industrial leadership is still another. Increased capital facilitates industrial organization.

“This increasing surplus is a monopoly fund, and this monopoly is found everywhere in our industrial field, and the problem of a better distribution finds its heart in the disposal of this surplus. What use shall be made of it? It is chiefly a social product to be socially controlled, and wise taxation is one of the means advocated by Professor Patten. Such taxation will favor the dynamic forces in society.”

To this quotation it should be added that the educational program of Professor Patten springs naturally from his economic theories. His purpose, among other things, is “to develop the mental qualities and feelings active in production,” to develop “strong social feelings with intimate social relations,” “a lofty ideal of society with a strong feeling of hostility to selfish aggression.” Education must develop the psychical elements and it must be the result of state activity in retaining the surplus in production for educational purposes. And education must favor a dynamic policy and help us to pass over from the pain economy of the past to the pleasure economy which should be ours in the future. With increasing command over nature, giving us larger resources, the time has come for us to pass over from an economy in which we seek to avoid pain,—disutility,—as a chief thing to an economy in which we may seek positive pleasures.

Professor Patten’s development of theory is as clearly marked by purpose as is Professor Clark’s, but the difference

in purpose between these two is most fundamental, and it not merely separates these two from each other, but divides economists and social philosophers into two great groups. Professor Clark's purpose is to justify the present socio-economic order in its essential aspects, not, indeed, as the best one which could be devised, but as the one established by beneficent nature. It is necessary simply to clear away things which are not in harmony with this order, especially obstacles in the way of competition, to give us a society working absolute justice among men in their relations to each other and producing a perfect economic basis for human society, so that any ills still remaining would find their cause outside the domain of economic life. Professor Patten holds that nature stands for forces which men are to use in order to give shape to a society constantly progressing toward perfection. It is for society to control its own destiny, and society is responsible for the use made of opportunities afforded by nature. Nature, if left to herself, would give us a static society, in which privileged classes would absorb a large quantity of economic surplus. Competition left to itself as a natural force, results in giving to monopoly a vast share of wealth produced. Now while everywhere in the field of economic life there is, according to Professor Patten, monopoly, even marginal producers enjoying a portion of monopolistic surplus, there is a large free surplus to be absorbed by exclusive monopolies unless society organized as state steps in and uses this for social purposes. It is thus that Professor Patten's theories lead him to emphasize as he does an active policy of government, whereas Professor Clark emphasizes less and less governmental activity. Professor Clark, holding that there is no great fund from which wages can be increased, looks with little favor upon efforts to make government a model employer, establishing wholesome conditions of employment with respect to labor-time and remuneration. Anything thus gained would be taken away from the legitimate earnings

of others, there being no large surplus fund of individually unearned wealth¹ out of which such gains could safely come. Professor Patten, on the other hand, sees sources of wealth which can and should be utilized for the general good. Professor Clark emphasizes individual rights, and is thus alarmed by attacks on private property, while apparently having a less open eye for raids on public property and the occasional wholesale robbery which deprives society at large of valuable economic rights. Professor Patten, on the other hand, emphasizes the idea of society, and is solicitous about social rights and privileges which he would safeguard by an active policy of government. It would be interesting to continue this comparison, but I must hasten on.

It is my opinion that too little attention has been given to the theoretical work which many other thinkers in the United States have accomplished during the decade now drawing to a close. Here and there work has been going forward of theoretical importance. It may be that in cases this theoretical work is cut out on an equally large scale and is quite as ambitious in purpose as that of the two economists mentioned, although not enough of it has as yet seen the light to make clear its true nature. It is doubtless true, however, that the work in theory on the part of economists has largely consisted of the development of separate doctrines which it has been hoped to fit into a general framework of theory derived from others.

Having discussed the two theorists, Professors Clark and Patten, may I be permitted to say a word about my own work in theory, as this work so naturally finds its place in my paper at this precise point? It has been asserted, I believe, that I do not care for theory and that my own interest has been mainly in the direction of popular work. Nothing could be further from the truth. The error proceeds from making what has been incidental with me appear

¹ According to Professor Clark, such surplus as there is, is for the most part needed as a dynamic force.

to be the main thing. For years I have been working on what could perhaps be called a system of economic philosophy under the title, "The Distribution of Wealth," which, if my plans are carried out, will at least have the merit of magnitude. One volume, on "Monopolies and Trusts," is already in print, and as soon as they can be suitably revised, three or four other volumes will be ready for publication, while several volumes remain to be written. But in the popular work of previous years, which I have from time to time given to the public, there have been developments of theory which have been in many cases overlooked, doubtless on account of the popular setting in which they have frequently been found.

Confining myself to what has been put in print, I will say that I have endeavored to formulate clearly the idea of monopoly, to explain the causes of monopoly, to draw sharp lines between various classes of monopoly, and, reaching my conclusions more objectively than Professor Patten, to show how wide the extent of monopoly; and I have explained the old statement that monopoly price is the price which yields highest net returns to the monopolist in such a way as, I venture to hope, to add something to it. In particular, I have brought forward the principle that monopoly price is class price, varying from economic class to economic class. Finally, I have formulated this new and fundamental law of monopoly price:

The greater the intensity of customary use, the higher the general average of economic well-being, and the more readily wealth is generally expended, the higher the monopoly price.

This topic, the theory of monopoly, calls to my mind what I regard as a fine piece of theoretical work done by Professor John R. Commons. I refer to his discussion of the law of increasing and diminishing returns in his "Distribution of Wealth." Professor Commons, by keen analysis, shows that increasing and diminishing returns must be considered from four distinct standpoints, namely, the standpoint of an

entire industry during its historical development; secondly, the standpoint of an entire industry at a given moment; thirdly, the standpoint of the entrepreneur; fourthly, the standpoint of a given area of ground. He further distinguishes between increasing and diminishing returns measured in concrete goods and increasing and diminishing returns measured in values, and finally points out that it is the third standpoint,—that of the entrepreneur,—and values which are of main importance in a discussion of monopoly.

Professor J. W. Jenks' development of the theory of monopoly should receive mention at this point. He has attempted to show that mere mass of capital has essential significance in monopolistic growths.

President Hadley's work on economics shows original power along the line of theory. What impressed me perhaps as strongly as anything when I read it was the leading thought that the test of all economic institutions and arrangements is social well-being. This is doubtless what would be called chiefly a practical consideration, but I think it has a bearing on theory. The position given private property in economics by President Hadley is also noteworthy. A marked feature of his work is the application of the principle of natural selection, whereby a connection is made between ethics and economics. Finally, mention may be made of his treatment of interest as commuted profit.

Professor Taussig has done much good work during the decade under consideration. Confining myself to economic theory, I am inclined to mention particularly two services,—namely, first, the participation in the management of the *Quarterly Journal of Economics*, so largely given to theory; secondly, his restatement of the wage-fund theory, whereby it is greatly strengthened. Professor Taussig has brought into prominence the limitation of present wages by past accumulations, while at the same time he finds sufficient elasticity in wage-sources to provide room for hopeful struggle for improved conditions on the part of the wage-workers.

Public finance is generally held to belong to the science of economics, and as I believe that this view is correct, it is natural for me to direct your attention to this great field. Have we had theoretical developments in public finance during the past decade? There have been no startling new discoveries of a theoretical nature, but along old lines there has been both movement and improvement. There has been considerable instructional activity in public finance in the universities and work of preparation for publication has been conducted with results which the future must disclose. This has been one of the two main fields of my own academic activity, but my pioneer work on "Taxation in American States and Cities" falls just outside our decade. I think, however, that I may venture to believe that its developments of theory have not been entirely without influence on financial writings during the decade. I have in mind, among other things, the definition and the classification of taxes, and the discussion of the underlying and fundamental defects in the theory of the general property tax as it exists in the United States.

The name of Professor Seligman is that which probably will be generally admitted to hold the first place in the elaboration of theories in public finance, so far as we may judge from published results, although it is by no means true, as has been recently asserted, that his is the only American name which has received recognition outside of our own country. Attention is especially called to his discussion of the theory of progressive taxation and to his exhaustive treatment of the shifting and incidence of taxation.

Professor Henry C. Adams' text-book contains some interesting theoretical discussions. One is his criticism of the social theory of taxation, another his theory of the taxation of railways and other corporations.

Discussions of economic method are held to belong to theory. In this department there is doubtless less interest now than there was in 1889, illustrating the fact that interest

in any field of theory declines in proportion as agreement among scientists is reached. The contrast in the views held with respect to method in our decade with those held in the early part of the preceding decade is marked. About 1885, incredible as it may now seem, it was in some quarters considered even dangerous to advocate the use of those things for which the so-called historical method stood. One economist about that time used these words: "The opinion prevails far too widely that political economists must be mere doctrinaires and must contend for some set of opinions and some course of policy. Critical study of phenomena is as unpopular as free thinking in religion." A vigorous protest against such an extreme position was manifestly called for, and it came. While in some particulars it went to an extreme, it has left its mark on method in our decade. There is now a free field for any and all methods. During the earlier part of our decade, discussions of method may have favored deduction; recently, however, there is a reaction again in favor of a use of what we may call, in the widest sense, the inductive method. Professor Ashley is a leader in this direction, and in his inaugural at Harvard he decried economic theory, placing little value upon it, whenever it became ambitious enough to pass outside the covers of an elementary treatise. Professor Ashley insists that through studies of economic history we must gain correct ideas of economic evolution.

While abstaining otherwise from criticism, I must say that it seems to me that Professor Ashley's protest is only against what he regards as wrong theory and wrong theoretical methods of reaching truth, and that in his own way he is as anxious to reach theory as are others who call themselves theorists. Without dwelling further on method, I would say in concluding this branch of my subject, that in my opinion the theoretical tendencies for which Professor Ashley stands are more likely to increase than to decline in strength during at least the earlier part of the decade upon which we are entering.

Theoretical work of importance has been done along the border lines of our science. The development of sociology during the decade under consideration must be given credit for services in this direction. I mention the name of Professor Giddings and that of Professor Small in this connection.

The relation of statistics to economics has similarly been elucidated. We naturally think of the work of Professor Mayo-Smith in this connection.

I have already, I fear, gone beyond my limits and trespassed too long on your patience. Much that ought to be said has undoubtedly been left unsaid, but I venture to hope that I have in rough outlines given a fairly accurate sketch of the theoretical work of the decade 1889-99.

The work of theory during this decade has been criticised from time to time, and in my opinion it has been open to criticism. Literary style has not been cultivated as it should have been, and now and then obscurity may have been taken for depth. There are great masters in economics whose writings find a place in literature, and these masters deserve emulation. Some discussions of theory may of necessity be too abstract and profound to interest those outside the narrow circle of specialists, but it is a legitimate ambition for an economist, dealing as he does, with the every-day life of the world, to help in creating literature.

Professor Macvane, of Harvard, has protested vigorously against scholasticism in economics, and in my opinion with some reason. Let us be as thorough, as painstaking, as it is possible to be, but let us take care that we are not crushed by our own learning! Much that has been laboriously gathered together will be swept aside before we reach 1909, and will be thrown on the rubbish-heap of ingenious but fruitless speculation. I think it may be said that the theoretical work of the decade has as a rule lacked sufficient boldness. We have been too timid, and have in some cases spent much time in petty refinements while essentials have been overlooked.

This is one side of the picture. There is a brighter side, which my presentation has surely brought out. Others will not view us as we view ourselves, but those who look back on this decade will certainly admit that within it much painstaking work has been done, that new developments have added something to the permanent structure of science, and that, toiling hard and conscientiously, the economists of 1889-99 have at least prepared the way for a fullness of knowledge which it was not their own good fortune to enjoy.

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